

Summary

The invention as presented describes a method and devices for a one-dimension and a two-dimension separation of biomolecules in gels by means of electrophoresis in an electrophoresis apparatus and serves in particular the separation of, for example, proteins, glycoproteins, lipoproteins, nucleic acids or cell complexes. A first device according to the invention is characterised, in that an electrophoresis combination chamber (1) has a core (2) with cooling elements (3), where the cooling elements (3) are arranged under the gel chambers (6,7) and buffer vessels (8 and 21) formed on both sides of the core (2) by inner plates (4) and outer plates (5) in combination with removable or switchable isolating elements.

A second combination chamber for one or two dimension separation of biomolecules or other substance mixtures in gels arranged horizontally above each other by means of electrophoresis indicates a rear wall plate and a cover plate where, between rear wall plate and cover plate, at least two deflection elements are arranged for guiding isolating elements.

Furthermore, a method for the one-dimension separation as well as the two-dimension separation and the recipe of specific gels are described.